



MI Flu Focus

Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories



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Updates of Interest:

- Minnesota [reported](#) a hospitalized [H3N2v](#) case with recent swine exposure.
- MDHHS & MSU's 4th annual Flu Webinar is August 26, 12-1 PM! Registration is required; register [here](#).

Influenza Surveillance Report for the Week Ending July 25, 2015

Michigan Disease Surveillance System

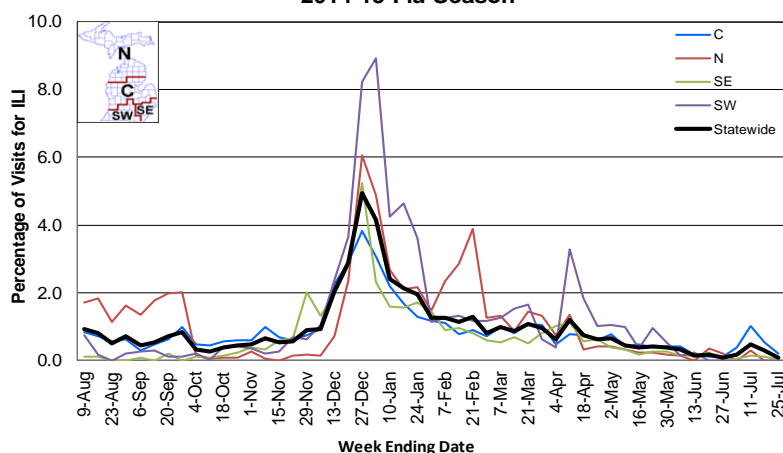
MDSS influenza data indicated that compared to levels from the previous week, aggregate and individual reports remained the same. Individual reports are slightly higher while aggregate reports are similar to levels seen during the same time period last year.

Emergency Department Surveillance

Compared to levels from the week prior, emergency department visits from constitutional complaints increased slightly while respiratory complaints decreased slightly. Levels of constitutional complaints are slightly lower while levels of respiratory complaints are lower than levels seen during the same time period last year.

- 8 constitutional alerts (1SE, 2SW, 4C, 1N)
- 6 respiratory alerts (1SW, 5C)

Percentage of Visits for Influenza-like Illness (ILI)
Reported by Sentinel Providers, Statewide and Regions
2014-15 Flu Season



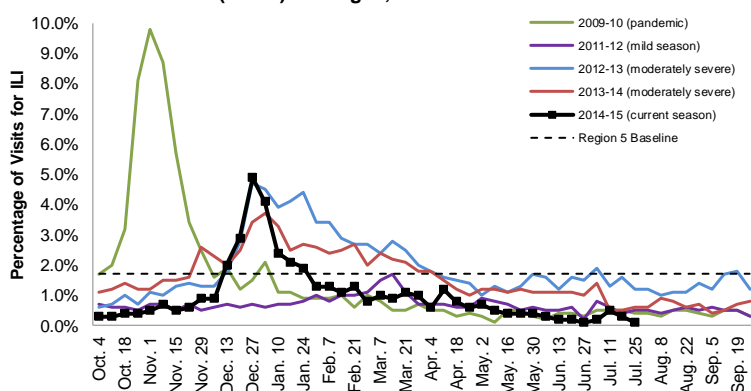
Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 0.1% overall; this is below the regional baseline (1.7%). A total of 4 patient visits due to ILI were reported out of 5,262 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (19 total):

- C (4)
- N (3)
- SE (11)
- SW (1)

Percentage of Visits for Influenza-like Illness (ILI) Reported by
the US Outpatient Influenza-like Illness Surveillance Network
(ILINet): Michigan, Select Seasons



Become a Sentinel Provider!

As part of pandemic influenza surveillance, CDC and MDHHS highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Stefanie DeVita (devitas1@michigan.gov) for more information.

Table of Contents:

Michigan Surveillance.....	1-3
National Surveillance.....	3
International Surveillance....	3
FluBytes	4

Hospital Surveillance

The CDC Influenza Hospitalization Surveillance Project provides population-based rates of hospitalization due to severe influenza illness through active surveillance and chart review of lab-confirmed cases, from Oct. 1, 2014 – Apr. 30, 2015, for Clinton, Eaton, Genesee, and Ingham counties. The cumulative total during the reporting period was 88 pediatric hospitalizations (45.6 per 100,000 population) and 374 adult hospitalizations (54.6 per 100,000) within the catchment area.

The MDHHS Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 9 hospitals (C, SE & SW) reported. Results are listed in the table below. Additional hospitals are welcome to join; please contact Seth Eckel at eckels1@michigan.gov.

Age Group	New Flu Hospitalizations Reported	Total 2014-15 Flu Hospitalizations to Date
0-4 years	0	31 (1N, 21C, 4SE, 5SW)
5-17 years	0	33 (28C, 5SE)
18-49 years	0	68 (2N, 12C, 49SE, 5SW)
50-64 years	0	130 (3N, 14C, 99SE, 14SW)
65 years & older	0	529 (20N, 19C, 435SE, 55SW)
Total	0	791 (26N, 94C, 592SE, 79SW)

Laboratory Surveillance

MDHHS Bureau of Laboratories reported 1 new positive influenza result: 1 A/H3. A total of 565 positive influenza results have been reported for the 2014-15 season. Influenza results for the 2014-15 season are in the table below.

Respiratory Virus	# Positive Respiratory Virus Results by Region				Total	# Specimens Antigenically Characterized	# Tested for Antiviral Resistance
	C	N	SE	SW			# Resistant / Total # Tested
2009 A/H1N1pdm				1	1		
Influenza A/H3	114	33	99	248	494	15* (3 A/Texas/50/2012-like**, 12 A/Switzerland/9715293/2013-like)	0 / 146
Influenza B	20	6	19	23	68	68 (48 B/Yamagata lineage [3* B/Massachusetts/02/2012-like [†] , 9* B/Phuket/3073/2013-like ^{††}], 17 B/Victoria lineage, 3 inconclusive)	
Influenza A, unsubtypeable	1			1	2		

*Specimens antigenically characterized by CDC; **A/Texas/50/2012 (H3N2) virus is the H3N2 component of the 2014-15 Northern Hemisphere flu vaccine, A/Switzerland/9715293/2013-like is an antigenic variant of the current vaccine virus; [†]B/Massachusetts/02/2012 virus is the B/Yamagata component of the 2014-15 Northern Hemisphere trivalent and quadrivalent flu vaccines; ^{††}B/Phuket/3073/2013 virus is the B/Yamagata component of the 2015-16 Northern Hemisphere trivalent and quadrivalent flu vaccines.

In addition, 8 sentinel clinical labs (2SE,2SW,4C) reported influenza results. No labs reported influenza A activity. One lab (C) reported sporadic influenza B activity. Two labs (SW,C) reported sporadic Parainfluenza activity. No labs reported RSV activity. Two labs (C) reported sporadic Adenovirus activity. No labs reported hMPV activity. Testing volumes remain low in all regions.

Influenza Congregate Settings Outbreaks

There was 1 new facility outbreak reported to MDHHS (unknown etiology/no testing done). There have been a total of 155 respiratory facility outbreaks reported to MDHHS for the 2014-15 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

Facility Type	C	N	SE	SW	Total
Adult Care Facility		1	2		3
Long-Term Care / Assisted Living Facility	28	12	36	39	115
K-12 School	1		2		3
Daycare				1	1
Unknown / Investigation Pending	16		4	9	29
Healthcare Facility				3	3
Correctional Facility				1	1
Total	45	13	44	53	155

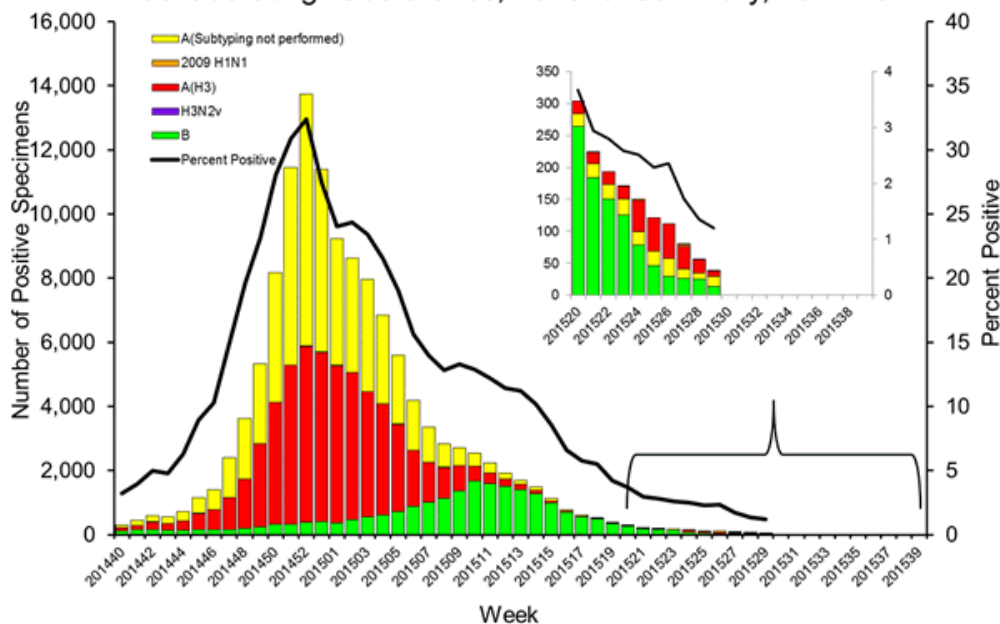
Influenza-associated Pediatric Mortality

No new influenza-associated pediatric deaths were reported to MDHHS. There have been a total of 3 influenza-associated pediatric deaths (1C, 1SE, 1SW) reported to MDHHS for the 2014-15 season.

National: In the United States, 0.7% of outpatient visits were due to influenza-like illness, which is below the national baseline of 2.0%. There have been 144 influenza-associated pediatric deaths reported during the 2014-15 season. Additional information is in the weekly FluView reports available at: www.cdc.gov/flu/weekly/. **NOTE:** Influenza surveillance in the U.S. will continue through the summer months with condensed reports available at www.cdc.gov/flu/weekly/; the full FluView resumes on October 16, 2015. [FluView interactive](#) will be updated over the summer months.

International: Globally, the Southern Hemisphere had increased influenza activity whereas influenza activity was at low levels in the Northern Hemisphere. In temperate South America, flu activity increased with influenza A(H1N1)pdm09 and influenza A(H3N2) predominating in recent weeks. There was a sharp increase in flu activity in Paraguay. In Australia and New Zealand, flu activity continued to increase with both influenza A(H3N2) and influenza B in circulation. Summary information is available at www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

Influenza Positive Tests Reported to CDC by U.S. WHO/NREVSS Collaborating Laboratories, National Summary, 2014-15





NAT'L IMMUNIZATION AWARENESS MONTH

It's [National Immunization Awareness Month](#)! There is a [communications toolkit](#) available to help you promote the importance of immunizations week by week. Here's the NIAM 2015 schedule:

- Aug. 2-8: Preteens and Teens
- Aug. 9-15: Pregnant Women
- Aug. 16-22: Adults
- Aug. 23-29: Infants and Children

AVIAN INFLUENZA NEWS IN NORTH AMERICA

- [Iowa bird flu disaster declaration extended](#)
- CDC: [Update: Domestic H5 outbreak in birds](#) (July 24)
- Any reports of sick or dead birds should be forwarded immediately to the proper agency:
 - For domestic poultry, contact MDARD:
 - M-F 8AM-5PM, 1-800-292-3939
 - After hours/weekends, 517-373-0440
 - For wildlife (die-off of waterfowl, gulls, or shorebirds), contact DNR:
 - M-F 8AM-5PM, 517-336-5030
 - After hours/weekends, 1-800-292-7800

2015-16 COLLEGE FLU CHALLENGE

Do you want to challenge your rival school to see who can get the most students vaccinated against flu? There are 13 schools enrolled in the [2015-16 College Flu Challenge](#)! Enrollment has been extended through August 7. Colleges and universities can enroll [here](#). If you have any questions about the Flu Challenge, contact me at DeVitaS1@michigan.gov.

AVIAN INFLUENZA A(H5N1), A(H7N9) NEWS

- [Nigeria notes four H5N1 outbreaks](#)
- [Ghana reports four H5N1 outbreaks in capital region](#)
- [Epidemiology of human influenza A\(H7N9\) infection in Hong Kong](#)
 - Delayed administration of antivirals may be associated with a more severe illness
 - Despite aggressive contact tracing, no secondary cases were identified, implies potential of human-to-human transmission remains low

FLU WEBSITES

www.michigan.gov/flu

www.cdc.gov/flu

www.flu.gov

<http://vaccine.healthmap.org/>

INFLUENZA-RELATED JOURNAL ARTICLES

- *Journal of Virology*: [Pathogenesis and transmission of novel HPAI H5N2 and H5N8 avian influenza viruses in ferrets and mice](#)
 - CDC: [New CDC laboratory study suggests U.S. H5 bird flu viruses currently pose low risk to people](#) (July 29)
- [Net costs due to seasonal influenza vaccination - U.S., 2005-2009](#)
 - Flu vaccination was cost saving in the ≥65 year age group
 - Averted costs varied significantly by season
- *Vaccine*: [Influenza vaccination type, LAIV vs IIV, received by children, U.S., 2011-12 through 2013-14 flu seasons](#)
 - In 2013-14, 33.3% of vaccinated children aged 2-17 years received LAIV, similar to 2011-12 and 2012-13
 - Children 2-8 and 9-12 more likely to have received LAIV than children 13-17
 - White children (compared to black) and children living above poverty (compared to at or below poverty) more likely to get LAIV
- [Live animal markets in Minnesota: a potential source for emergence of novel influenza A viruses and interspecies transmission](#)
 - "At markets where swine and persons are in close contact, swine-origin influenza A viruses (IAV) are prevalent and potentially provide conditions for novel IAV emergence."
- [Forecasting influenza epidemics in Hong Kong](#)

OTHER INFLUENZA-RELATED NEWS

- [Text reminders improve influenza vaccination among Text4baby participants](#)
- [High path avian influenza outbreaks in Vietnam, Taiwan](#)
- [Highly pathogenic avian influenza H7N7 in poultry in Germany](#)
 - Mutation of low-path avian influenza to high-path, a rare event
- [House committee continues questions on US flu season response](#)
- Sanofi Pasteur: [New analysis reports lower rates of serious cardio-respiratory events among study participants administered high-dose flu vaccine](#)

Archived editions of FluBytes are available [here](#) and MI FluFocus archives are [here](#).

For questions or to be added to the distribution list, please contact Stefanie DeVita at devitas1@michigan.gov.

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